CLAIMS

1. An indirect heating system (1) in which a solid fuel circulates in the form of particles, including a grinding station (3), a combustion chamber (7), at least one intermediate silo (6), a separator (4) and at least one cyclone (5), which system is characterized in that a dust extractor (10) intercepts the finest particles which are then introduced into the combustion chamber (7) via at least one dedicated pipe (52) and burned by at least one dedicated burner (71).

2. A heating system according to claim 1, characterized in that the dedicated burners (71) are near the main burners (70).

3. A heating system according to claim 2, characterized in that each series of main burners (70) has at least two dedicated burners (71).

4. An indirect heating system (1) in which a solid fuel circulates in the form of particles, including a grinding station (3), a combustion chamber (7), at least one intermediate silo (6), a separator (4) and at least one cyclone (5), which system is characterized in that a dust extractor (10) intercepts the finest particles which are then introduced into the combustion chamber (7) via dedicated pipes (53) and injectors (72) downstream of the main burners (70).

5. A heating system according to claim 4, characterized in that the finest particles are injected under substoichiometric conditions.

6. A heating system according to any preceding claim, characterized in that the intercepted particles have a diameter less than 75 microns.

7. A heating system according to any preceding claim, characterized in that the intercepted particles have a true mass per unit volume from 0.1 kg/dm^3 to 0.4 kg/dm^3 lower than that of the particles intercepted by

the cyclone.

8. A heating system according to claim 1, characterized in that some of the intercepted particles are introduced into the injectors (72) downstream of the burners (70, 71).

9. A heating system according to any preceding claim, characterized in that the combustion chamber (7) is a double vault combustion chamber.

10. A heating system according to any of claims 1 to 8, characterized in that the combustion chamber (7) is a front heating combustion chamber.

11. A heating system according to any of claims 1 to 8, characterized in that the combustion chamber (7) is a tangential heating combustion chamber.

12. A heating system according to any preceding claim, characterized in that the solid fuel is non-bituminous coal.